REMARKS

Reconsideration of this application, as amended, is respectfully requested.

Claims 1-24 are pending. Claims 1-24 stand rejected.

Claims _____ have been amended. Claims _____ have been cancelled. Claims _____ have been added. Support for the amendments is found in the specification, the drawings, and in the claims as originally filed. Applicants submit that the amendments do not add new matter.

Drawings

The Examiner has objected to the Figures 1A-C because they should be designated at Prior Art. The Examiner has stated

> Figures 1A-C should be designated by a legend such as –Prior Art—because only that which is old illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office Action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawings figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office Action. The objection to the drawings will not be held in abeyance.

(p. 2, Office Action 092904)

Rejections Under 35 U.S.C. § 102(e)

Claims 1-2, 4, 6-8, 10-11, 13-14, 16-20 and 22-23 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,304,552, of Chapman et al. ("Chapman"). The Examiner stated that

> With respect to claims 1, 7, 13 and 19, Chapman discloses in Fig. 3, an access point router, which includes interfaces 302 and 304 for receiving data packets. Chapman discloses in Fig. 1 that data packets are classified as either class 1 (C1) or class 2 (C2). Further, Chapman discloses in Fig. 4 that minimum and maximum bandwidth allocated to the class of traffic as received by the access point router (receiving data segments of at least one class of service at each of a plurality of ingress line cards, each class of service having a guaranteed percentage of transmission bandwidth). Chapman discloses (col. 9, lines 28-64) that based on the comparison between the accounting value and the bandwidth settings, a priority setting is established for the queue associated with the

DRAWINGS

Please replace Figures 1A-C with the replacement sheets that are attached.

logical pathway between ports A and K, either HI or LO (marking a portion of the data segments of each class of service based on the guaranteed percentage of bandwidth of the class of service). If the accounting results is less than its minimum bandwidth, in this example 3Mb/s, the queue priority will be HI (if data transmitted from a class of service is than less than the guaranteed percentage of transmission bandwidth of the class of service, all the data segments of the class are marked). Further, since class 2 traffic has reserved bandwidth with overflow and because a C2 queue which accounts for an output rate of traffic equal to the minimum bandwidth allocated can continue competing for spare bandwidth, a queue will have a LO priority setting (if data transmitted from a class of service exceeds the guaranteed percentage of transmission bandwidth of the class of service, the number of data segments marked corresponds to the guaranteed percentage of transmission bandwidth of the class of service). Once the queue's priority setting has been established, its outgoing packets are tagged to reflect the queue's priority status, through the state of a single bit in the packet header. If the bit is set, the data packet is being sent with HI priority; if the bit is cleared, the data packet is being sent with LO priority. Alternatively, the priority could be set through a multi-bit code point added outside of the original packet as an extra tag, together with the ring source and destination information. The controller 308 will schedule data packet transmission for the various queues so as to move traffic from Hi priority requests before traffic from LO priority requests (preferentially transmitting the marked data segments from each class of service).

(p. 2-4, Office Action 092904) Chapman discloses that

> Based on the comparison between the accounting value and the bandwidth settings, a priority setting is established for the queue associated with the logical pathway between ports A and K, either HI or LO. If the accounting result is less than its minimum bandwidth, in this example 3 Mb/s, the queue's priority will be HI. If the accounting result shows that the queue's traffic flow has reached its minimum bandwidth, the queue's priority will be LO, until the flow reaches its maximum bandwidth, also 3 Mb/s as this is C1 traffic, at which point the controller 308 will stop sending requests to the transport fabric for releasing IP data packets from this particular queue.
>
> It is important to note that since C1 traffic has reserved bandwidth without overflow, its minimum bandwidth is also its maximum. Consequently, once a C1 queue accounts for an output rate of traffic equal to the minimum bandwidth allocated no more IP data packets are released from the queue. This differs from C2 traffic, which has reserved bandwidth with overflow, because a C2 queue which accounts for an output rate of traffic equal to the minimum bandwidth allocated can continue competing for spare bandwidth with other C2 queues until it reaches its constraining maximum. When competing for spare bandwidth, a queue will have a LO priority setting.
>
> Once the queue's priority setting has been established, its outgoing packets are tagged to reflect the queue's priority status, through the state of a single bit in the packet header. If the bit is set, the data packet is being sent with HI priority; if the bit is cleared, the data packet is being sent with LO priority. Alternatively, the priority could be set through a multi-bit code point added outside of the original packet as an extra tag, together with the ring source and destination information.

> The controller 308 will schedule data packet transmission for the various queues so as to move traffic from HI priority requests before traffic from LO priority requests, as a LO request indicates that the queue traffic in question has already used up its minimum allocated bandwidth fraction on its logical pathway.

(Chapman, Col. 9, Lines 28-67) Chapman also discloses that

> The controller 308 uses a round-robin scheduling policy to schedule packet release permissions for LO request traffic queues, as this ensures equal competition between all of these queues for any available spare bandwidth

(Chapman, Col. 10, Lines 25-28)

Applicants respectfully submit that claim ____ is not anticipated by Chapman under 35 U.S.C. 102§(e). Amended claim ___ includes the following limitations:

[insert amended claim, single space]

(Amended claim ___) (emphasis added)

Rejections Under 35 U.S.C. § 103(a)

Claims 3, 5, 9, 12, 15, 21 and 24 stand rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 6,304,552 of Chapman et al. ("Chapman").

The Examiner has rejected claims 3, 5, 9, 12, 15, 21 and 24 under 35 U.S.C. § 103 as being unpatentable over Chapman. The Examiner has stated that

> With respect to claim 5, Chapman discloses (col. 9, lines 53-55) that once the queue's priority setting has been established, its outgoing packets are tagged to reflect the queue's priority status, through the state of a single bit in the packet header (wherein marking includes implementing a must-serve bit on the cell).

(p. 5, Office Action 092904)

Given that new claims _____ depend from claim ____, applicants submit that new claims ____ are not obvious under § 103 in view of the references cited by the Examiner.

It is respectfully submitted that in view of the amendments and arguments set forth herein, the applicable rejections and objections have been overcome. If there are any additional charges, please charge Deposit Account No. 02-2666 for any fee deficiency that may be due.

Respectfully submitted,

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Date: 1/31/05 By: _____

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